



# **I-95 Corridor Study**

## **Including Route 802, Route 54, and Route 30 Interchanges**

**Hanover County / Town of Ashland**

**Virginia Department of Transportation**  
**Transportation and Mobility Planning Division**  
Reference No. TPD 02-02

## ***FINAL REPORT***

### **1. INTRODUCTION**

Located just north of Richmond, Virginia, Hanover County is one of the fastest growing counties in Virginia, with industrial, commercial, and residential land uses growing along the Interstate 95 (I-95) corridor from the I-95/I-295 interchange to the Caroline County line. The Town of Ashland, the only incorporated town in Hanover County, is experiencing similar development pressures, especially adjacent to the I-95 corridor. To meet the travel demands of the anticipated growth, capacity improvements are currently being constructed on the south end of this corridor at the interchange of I-95 and Route 656 (Sliding Hill Road/ Exit 86). As Hanover County's and Ashland's growth continues northward—and as inter-regional traffic volumes increase along this interstate corridor—capacity improvements are needed for the I-95 mainline and its interchanges at Route 802 (Lewistown Road/Exit 89), Route 54 (Ashland/Exit 92), and Route 30 (Kings Dominion theme park/Exit 98). See **Figure 1-1**.

This I-95 Corridor Study is a planning-level study that has been directed by the Virginia Department of Transportation (VDOT) Transportation and Mobility Planning Division (TMPD) and coordinated closely with a Technical Advisory Committee (TAC) representing a number of stakeholders of the study. The goal of this study has been to develop practical and feasible concept solutions needed to address operational and safety concerns, as well as future capacity requirements. The study team has analyzed current and future year traffic volumes, investigated operational and geometric deficiencies, and developed interim and long-term solutions for improving traffic flow in the corridor. The forecast or horizon year for this study has been 2025, with travel demands and ultimate conceptual solutions projected for that year.

This Final Report documents the study's data collection and analysis efforts, and it presents findings and recommendations that have been coordinated with representatives from VDOT, Hanover County, the Town of Ashland, the Richmond Regional Planning District Commission (RRPDC), and the Federal Highway Administration (FHWA). The solutions presented in this report are thus consensus-based.

The report is envisioned to be a planning tool to identify anticipated right-of-way requirements within the study area, to address access issues near the interchanges, and to develop specific projects that can be executed through the traditional planning processes of these stakeholders, including the Comprehensive Plans of Hanover County and the Town of Ashland, the Richmond Area 2026 Long-Range Transportation Plan (LRTP), and the VDOT Six-Year Improvement Program.

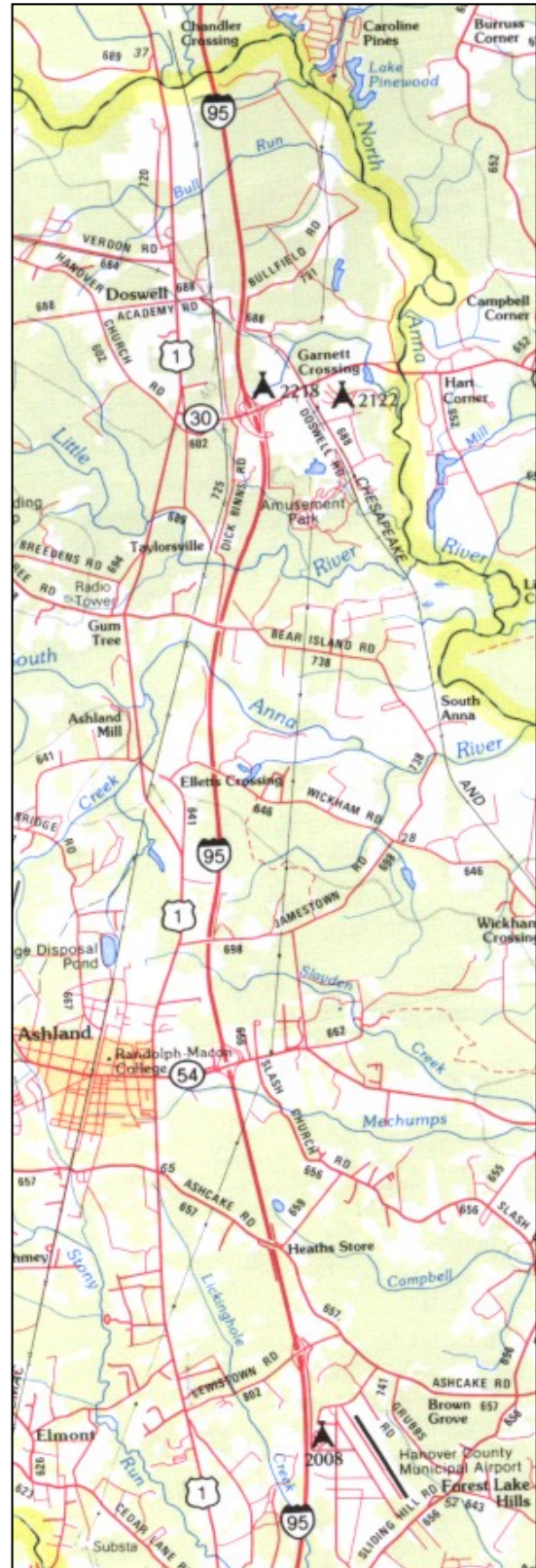
## 1.1 Background

I-95 traverses more than 1,900 miles, from Miami, Florida to Houlton, Maine, at the Canadian border. The corridor is one of the major north-south routes for travelers and commerce in the Eastern United States, with the interstate carrying far more numbers of heavy vehicles than anticipated during its creation. In Virginia, I-95 was built near and parallel to the existing major inter-regional highways of U.S. 1 and U.S. 301 from the North Carolina state line to the District of Columbia. The Virginia segment of I-95 runs 179 miles from North Carolina to the Potomac River in the City of Alexandria.

As a major north-south route through Virginia, I-95 serves many counties, cities, and towns. In Hanover County and the Town of Ashland, this regional corridor and its interchanges serve as routes to and from local destinations, including retail, industrial, recreational, tourist, and residential areas. This study was driven by the need to balance local, regional, and interstate travel demands with existing and projected development along the corridor.

In early 2001, Hanover County and the Town of Ashland requested that VDOT perform a planning study to assess transportation improvements needed to the I-95 corridor in Hanover County, including the interchanges with Route 802, Route 54, and Route 30. (It should be noted that the existing Sliding Hill Road interchange at Exit 86 was not included in the study because ultimate improvements were already programmed by VDOT.) In late 2001, VDOT Transportation Planning Division (TPD) solicited proposals for the study, interviewed candidate firms, and selected Kimley-Horn and Associates to perform the study. In June 2002, under contract with TPD, Kimley-Horn was directed to conduct this 12-month study and to complete a set of recommendations for this corridor. (Note that under a VDOT reorganization, in January 2003, TPD was changed to the Transportation and Mobility Planning Division, or TMPD.)

The objectives of the study have been to develop cost-effective, practical, conceptual solutions for this corridor, to include interim and ultimate



**Figure 1-1 – I-95 corridor in Hanover County and Ashland, VA**

design recommendations to enhance the current and future traffic flow on I-95 along the mainline and through the three study area inter-changes. The solutions are intended to assist in further planning efforts by the stakeholders and in identifying right-of-way requirements and access issues for use in discussions with land developers. The recommendations have been defined as a set of possible projects that could be incorporated into a master plan for the corridor, considering proposed land uses around the interchanges and along the interstate mainline.

## 1.2 Scope of Study

The I-95 Corridor Study has analyzed existing and future conditions and developed mainline and interchange concepts that address future capacity and operational needs. Particular emphasis was given to growth in traffic due to inter-regional travel demands and potential land development in the study area, i.e., at the interchanges and along the mainline. To accomplish these objectives, the scope of the study included the following tasks:

- Collect existing documentation and data
- Interview and gather input from stakeholders of the study
- Collect additional traffic and other data
- Develop base mapping
- Analyze the data and examine existing (2002) and future year (2025) traffic conditions and draw conclusions
- Develop preliminary solutions for future year conditions
- Develop functional plans and analyze alternatives
- Develop and analyze a master plan of preferred concepts
- Present study findings and recommendations to the Hanover County Board of Supervisors and the Town of Ashland Town Council
- Produce a final report that can be used as a planning tool for decision-makers to take to the next steps in planning and implementation

These tasks have been completed in a 12-month time frame, in close coordination with the study's TAC, made up of representatives from VDOT and other major stakeholders (see Paragraph 1.4 below).

## 1.3 Study Area

From a **regional** perspective (considering regional transportation and land use patterns), the study area boundary was generally defined as I-295 on the south, the Caroline County line on the north, U.S. Route 301 on the east, and U.S. Route 1 on the west.

From a **conceptual planning** perspective, the study area was defined as the I-95 corridor from just south of the Route 802/Lewistown Road interchange to just north of the Route 30/Kings Dominion interchange, bounded to the east and west by the limits of interchange improvements. This area includes the interchanges of I-95/Route 802, I-95/Route 54, and I-95/Route 30. Since the interchanges are impacted by mainline activity, the mainline and the interchanges were analyzed together during the development of the recommendations. See **Figure 1-1**.

## 1.4 Stakeholder Participation

A key to the successful completion of this study has been the close involvement and tremendous support from the representatives of organizations that have a critical role in the next steps of the solutions for this corridor, including VDOT, Hanover County, the Town of Ashland, RRPDC, and FHWA. These stakeholders provided guidance throughout the study. In addition to the regular input from these representatives at TAC meetings, Kimley-Horn conducted individual interviews of these stakeholders, as well as interviews with representatives of other stakeholder groups such as the Virginia State Police, Hanover County Sheriff's Department, the Ashland Town Police, and Kings Dominion. Findings from the stakeholder interviews are included in Section 3 of this report.

### 1.4.1 Technical Advisory Committee (TAC)

To ensure the participation of the stakeholders, VDOT TMPD formed a Technical Advisory Committee (TAC) made up of representatives from the stakeholder organizations. The TAC included the members shown in **Table 1-1**. During this study, Kimley-Horn facilitated seven (7) TAC work sessions for members to review progress and provide feedback on the analysis, findings, and concept plans. Minutes were prepared and submitted to the TAC members. Participation from these members significantly enhanced the study process.

<b>Table 1-1</b> <b>I-95 Corridor Study</b> <b>Technical Advisory Committee (TAC)</b>	
<b>Agency</b>	<b>Name</b>
VDOT Transportation and Mobility Planning Division	Mr. Herbert Pegram Mr. Joe Orcutt
VDOT Richmond District Traffic Engineering (Mobility Management)	Mr. Travis Bridewell Mr. Dave Dreis
VDOT Richmond District Transportation Planning	Mr. Mark Riblett
VDOT Richmond District Location and Design Division	Mr. Grover Cleveland
VDOT Ashland Residency	Mr. Rob Crandol
Hanover County Administration	Mr. John Hodges
Hanover County Department of Planning	Mr. David Maloney
Hanover County Department of Public Works	Ms. Becky Draper Mr. Joe Vidunas
Hanover County Department of Economic Development	Mr. Marc Weiss
Town of Ashland – Department of Public Works	Mr. Mike Davis
Town of Ashland – Planning Director	Mr. Bill Kuthy
Richmond Regional PDC	Mr. Larry Hagin
FHWA – Area Engineer	Mr. Danny Jenkins
FHWA – Virginia Division	Mr. Ivan Rucker

### **1.4.2 Hanover County Board of Supervisors**

In addition to stakeholder interviews and TAC meetings, the findings and recommendations of this study were presented to the Hanover County Board of Supervisors on May 28, 2003, during a work session. The members of the board in attendance were:

- Mr. Aubrey M. Stanley, Jr., Beaverdam District (Chairman)
- Mr. Timothy E. Ernst, Ashland District (Vice-Chairman)
- Mr. Thomas F. Giles, Jr., Chickahominy District
- Mr. John E. Gordon, Jr., South Anna District
- Mr. Charles D. McGhee, Henry District
- Mr. Elton J. Wade, Sr., Cold Harbor District
- Mr. J.T. "Jack" Ward, Mechanicsville District

Comments from the Board included the need to address the "huge amount of through traffic" (comment by Mr. Giles) on I-95, generated by cities to the north and south of Hanover County, including the "crescent" of Washington, DC, Richmond, and Hampton Roads. The board members expressed the desire to ensure the interchanges were designed to allow travelers to easily access businesses, retail centers, and tourist destinations along I-95 in Hanover County. The concept plans recommended in this study provide that access.

### **1.4.3 Town of Ashland Town Council**

Similarly the study's findings and recommendations were presented at a meeting of the Ashland Town Council on June 3, 2003. The council members in attendance were:

- Ms. Angela L. LaCombe, Mayor
- Ms. Faye O. Prichard, Vice Mayor
- Mr. Melvin R. Hall, Jr.
- Mr. Anthony E. Keitt
- Mr. William C. Martin

Comments from the Council members and citizens in attendance focused on the Route 54 interchange concept, with its potential impacts to developable land. The Council requested that a figure be included in the report that showed the right-of-way that would be required for the concept plan. The Preferred Concept for the Route 54 interchange discussed in Section 4 of this report shows the right-of-way required.

A copy of the presentation provided to both Hanover County and the Town of Ashland is included in the Appendices of this report.

## **1.5 Study Team**

The consultant study team for this project was led by Kimley-Horn and Associates, Inc. Kimley-Horn was assisted in data collection by O.R. George & Associates. Kimley-Horn has specialized in transportation planning and engineering since its founding in 1967. Its staff members include professional planners, traffic engineers, and roadway designers that have brought years of practical knowledge to this project, as well as state-of-the-art tools of the trade such as MINUTP, CORSIM, HCS, and other applications. Kimley-Horn has successfully completed numerous studies similar to the I-95 Corridor Study. Work on this study was

conducted out of Kimley-Horn's Virginia offices in Richmond, Northern Virginia, and Hampton Roads, along with help from professionals located in several other offices.

Subconsultant O.R. George & Associates was formed in 1985 and is certified by the Virginia Department of Transportation as a Minority-owned and Disadvantaged Business Enterprise (MBE/DBE). The firm provides a variety of transportation planning and traffic engineering services and has assisted in completing several projects similar to the I-95 Corridor Study.

## **1.6 Study Process**

The completion of the I-95 Corridor Study involved two parallel efforts: the technical process of a traditional transportation planning study combined with a process of involving the stakeholders from start to finish. The technical process included collecting and analyzing data, drawing conclusions, and developing concepts for capacity improvements. The stakeholder process included regular participation of the TAC, along with interviews of individual stakeholders. The result of both efforts is a consensus-based set of findings and preferred concepts and a master plan for the I-95 corridor in Hanover County and the Town of Ashland to take to the next steps in the planning process.

This final report of the I-95 Corridor Study presents the results of collecting and analyzing data, drawing conclusions, and developing Preliminary Solutions, Alternative Concepts, and Preferred Concepts. The Appendices to this report provide references and supplemental information.